

CLAIM AMENDMENT

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1-40. (Canceled)

41. (Currently amended) A method of vaccinating a subject comprising:

(a) obtaining a nucleic acid encoding an antigen or an antigen that is encoded by said nucleic acid, wherein the nucleic acid or antigen has been determined to elicit an immune response by a method comprising the steps of:

- i) obtaining a library comprising DNA or RNA sequences from a pathogen;
- ii) introducing a plurality of members of said library into an animal; and
- iii) ~~selecting~~ performing *in vivo* selection of at least a first member from the library that elicits an immune response to identify said nucleic acid or antigen; and

(b) administering the nucleic acid or antigen to a subject in a manner effective to vaccinate the subject against the pathogen.

42. (Withdrawn) The method of claim 41, wherein the pathogen is a virus, yeast, mold, algae or protozoa.

43. (Previously presented) The method of claim 41, wherein the pathogen is a bacterial cell.

44. (Previously presented) The method of claim 43, wherein the bacterial cell is identified as *Mycoplasma pulmonis* or *Listeria monocytogenes*.

45. (Previously presented) The method of claim 41, wherein the library is prepared using a bacterial host cell.

46. (Withdrawn) The method of claim 41, wherein the library is prepared using a mammalian host cell.
47. (Previously presented) The method of claim 45, wherein the bacterial cell is an *E. coli*.
48. (Previously presented) The method of claim 41, wherein the DNA or RNA is fragmented physically or by restriction enzymes.
49. (Previously presented) The method of claim 48, wherein fragments are about 100-1000 bp.
50. (Previously presented) The method of claim 48, wherein the fragments have a median size of about 400 bp.
51. (Previously presented) The method of claim 41, wherein the DNA or RNA is fused to a mammalian gene.
52. (Previously presented) The method of claim 51, wherein the mammalian gene encodes a fusion protein.
53. (Previously presented) The method of claim 52, wherein the fusion protein is ubiquitin or human growth hormone.
54. (Previously presented) The method of claim 41, wherein the library is about 1×10^2 to about 1×10^7 members.
55. (Previously presented) The method of claim 41, wherein the library is about 10^3 to about 10^5 members.
56. (Previously presented) The method of claim 41, wherein the library is about 10^4 members.

57. (Previously presented) The method of claim 41, wherein about 8 μ g to about 12 μ g of DNA or RNA is introduced into the animal.
58. (Previously presented) The method of claim 41, wherein about 10 μ g of DNA or RNA is introduced into the animal.
59. (Previously presented) The method of claim 58, wherein the DNA or RNA is introduced by gene gun or injection.
60. (Previously presented) The method of claim 41, wherein the expression library comprises a vector that includes a promoter suitable for expression in a mammalian cell.
61. (Withdrawn) The method of claim 60, wherein the vector includes a signal sequence positioned upstream of the DNA or RNA.
62. (Previously presented) The method of claim 41, wherein the library is a cloned expression library.
63. (Previously presented) The method of claim 41, wherein the DNA or RNA is synthesized chemically.